A NEW SPECIES OF *PLATYCEPHALA* FROM CHINA (DIPTERA: CHLOROPIDAE: CHLOROPINAE)'

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ABSTRACT: The genus *Platycephala* is newly recorded from Guangxi, with the description of a new species *P. guangxiensis*. Remarks on its relationships with the close species *P. zhejiangensis* Yang and Yang, 1995, are given.

KEY WORDS: Diptera, Chloropidae, Chloropinae, Platycephala, China.

The genus *Platycephala* Fallén belongs to the subfamily Chloropinae, and is characterized by the following features: Body large; head distinctly longer than high; frontal triangle occupying large part of frons, reaching anterior margin of frons with broadened apex; arista slender with short pubescence (Kanmiya, 1983). Until now the genus *Platycephala* contained seventeen species worldwide, of which eleven are known from the Oriental Realm (Sabrosky, 1977; Cherian, 1978; Kanmiya, 1983; Yang and Yang, 1994, 1995, 1997; An and Yang, 2003) and six from the Palaearctic Realm (Nartshuk, 1984). Eight species are known from China (An & Yang, 2003). The major references dealing with *Platycephala* are as follows: Andersson (1977), Cherian (1978), Kanmiya (1983).

In this paper, one species of the genus *Platycephala* from Guangxi is described as new to science. Types are deposited in the Insect Collections of the China Agricultural University, Beijing.

Platycephala guangxiensis An and Yang, NEW SPECIES (Figs.1-8)

Diagnosis: Head triangular in profile, about 1.5 times as long as high. Frontal triangle trapezoidal, polished brownish yellow with two blackish lateral spots. Thorax black; propleuron brown with dark brown spot at posterior margin; pteropleuron blackish brown with pale upper part. Legs pale yellow.

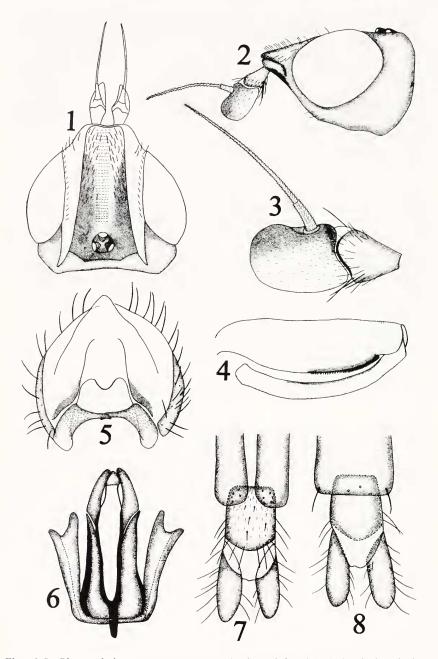
Description: Male: Body length 5.5-6.5 mm, wing length 3.8-4.6 mm.

Head (Figs 1-2) blackish brown, triangular in profile, about 1.5 times as long as high; frons strongly produced beyond anterior level of eye, in profile about 0.35 times as long as long axis of eye; gena prominently broadened posterad, anteriorly strongly narrowed below eye; parafacial about 0.07 times as broad as long axis of eye. Frontal triangle trapezoidal, polished brownish yellow, occupying most of frons and reaching its anterior margin, semicircular anteriorly with two blackish lateral spots, and with many transverse grooves occupying median longitudinal area in front of ocelli; ocellar triangle black; area between eye and frontal triangle depressed and brownish. Occiput subshiny and punctured; gena and frons (in front of eye) brownish. Hairs and bristles on head brownish black. Antenna (Fig 3) brown with pale gray pollen; pedicel 0.8 times as long as long as long as wide, rounded apically, with blackish brown anterior and

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Figs. 1-8. *Platycephala guangxiensis*, n. sp. (male and female). 1, head, dorsal view; 2, head, lateral view; 3, antenna, outer lateral view; 4, hind femur, lateral view; 5, epandrium, posterior view; 6, hypandrium and phallic complex, ventral view; 7, female abdominal terminalia, ventral view; 8, female abdominal terminalia, dorsal view.

Thorax black, slightly narrower than head; propleuron brown with dark brown spot at posterior margin; pteropleuron blackish brown with pale upper part; mesonotum 1.3 times as long as wide, with prominent setigerous punctures; scutellum pale pollinose, 1.5 times as wide as long and brown at posterior margin. Hairs on thorax pale, bristles black; apical scutellar bristles convergent posteriorly and nearly as long as scutellum; subapical scutellar bristles about 0.2 times as long as scutellum; stemopleuron with some long thin hairs. Legs pale yellow and pollinose except hind femur and basal part of hind tibia brownish. Hind femur (Fig 4) distinctly thickened, about 3.4 times as long as wide and 3 times as thick as fore femur; hind tibia somewhat curved and black ventrally. Hairs on legs pale, but tarsi with brown hairs. Wing hyaline; veins mostly brown. Relative lengths of costal sections 2nd: 3rd : 4th = 2.2 : 3.2 : 2.2; relative lengths of ultimate and penultimate sections of veins R_{2+3} (4.4:1), R_{4+5} (5.3:1.5), M (4:2.2), CuA_1 (1:3.2); penultimate section of M about 7.3 times as long as r-m; R_{4+5} and M nearly parallel; *dm-cu* and *r-m* convergent posteriorly. Squama yellow with brownish yellow hairs. Halter pale yellow with white knob.

Abdomen dark brown; tergites 1-2 black and rugose; tergite 7 and following tergites brownish; venter yellow. Hairs on abdomen pale; dorsum with some long thin hairs laterally. Male genitalia (Figs 5-6): epandrium blackish, nearly as long as wide, with some long hairs; surstyli brown, attached to epandrium at base, narrow and crossing apically; hypandrium blackish, higher than wide; gonites well demarcated by oblique suture; pregonites parallel-sided with distal ends acute; postgonites oblique, distal ends convergent.

Female: Body length 6.3-7.3 mm, wing length 4.1-4.3 mm. Similar to male. Female genitalia (Figs 7-8): yellow; tergite 10 nearly rectangular, distinctly longer than wide, distal portion narrowing toward tip and membranous; sternite 10 nearly quadrate, shorter than tergite 10. Hairs on genitalia brown, short, but sternite 10 with one row of long hairs on apical margin; tergite 10 and cerci also with some long hairs.

Type Data: Holotype, male, CHINA: Guangxi, Tianlin, Cengwanglaoshan, 2002. VIII. 15, Ding Yang, deposited in the Insect Collection of China Agricultural University, Beijing. Paratypes: 2 males, 2 females. Same data and repository as holotype.

Etymology of specific epithet: The species is named after the type locality Guangxi.

DISCUSSION

The new species is somewhat similar to *Platycephala zhejiangensis* Yang *et* Yang, 1995 from Zhejiang in having the blackish brown head and brown antenna, but can be separated from the latter by the brown propleuron with dark brown spot at posterior margin, blackish brown pteropleuron with pale upper part and pale yellow hind tibia. In *P. zhejiangensis,* the thorax is wholly black, and the hind tibia is black (Yang and Yang, 1995).

Nine species of the genus *Platycephala* are known to occur in China. Among them seven species (*P. guangxiensis* An and Yang, *P. guizhouensis* An and Yang, *P. lii* An and Yang, *P. maculata* An and Yang, *P. sichuanensis* Yang and Yang, *P. xanthodes* Yang and Yang, as well as *P. zhejiangensis* Yang and Yang) are scattered in the central and southern regions of China: Western Mountain subregion (Sichuan), Min-Guang subregion (Guangxi), East Hilly Plain subregion (Zhejiang), Guizhou Plateau province (Guizhou), and Southern Yunnan subregion (Yunnan). All these regions are part of the Oriental Realm. Two other species [*P. sinensis* Yang and Yang, *P. umbraculata* (Fabricius)] are distributed in the Neimeng-Xinjiang region and the North China region (Beijing, Neimeng, Shaanxi) which are part of the Palaerarctic Realm. *Platycephala umbraculata* is also distributed in other parts of Asia (Japan and Mongolia) and Europe.

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LITERATURE CITED

- An, S. and D. Yang. 2003. A review of the genus *Platycephala* Fallén, 1820 from China (Diptera, Chloropidae). Annales Zoologici 53(4):651-656.
- Andersson, H. 1977. Taxonomic and phylogenetic studies on Chloropidae (Diptera) with special reference to Old World genera. Entomologica Scandinavica. Supplement 8:200 pp.
- Cherian, P. T. 1978. The genus *Platycephala* (Diptera: Chloropidae) From India. Oriental Insects 12(1):137-141.
- Kanmiya, K. 1983. A systematic study of the Japanese Chloropidae (Diptera). Memoirs of the Entomological Society of Washington 11. 370 pp.
- Nartshuk, E. P. 1984. Family Chloropidae. pp 222-299. In, Soós, Á. and L. Papp. (Editors). Catalogue of Palaearctic Diptera, Volume 10. Akadémiai Kiadó. Budapest, Hungary. 402 pp
- Sabrosky, C. W. 1977. Family Chloropidae. pp 277-319. *In*, Hardy, D. E. and Delfinado, M. D. (Editors). A Catalog of Diptera of the Oriental Region. Volume 3. The University Press of Hawaii, Honolulu. 854 pp.
- Yang, D. and J. K. Yang. (1995) Diptera: Chloropidae, pp 541-543. In, Wu, H. (Editor). Insects of Baishanzu Mountain, eastern China. China Forestry Publishing House. Beijing, China. 586 pp. (In, Mandarin)
- Yang, D. and J. K. Yang. 1997. Diptera: Chloropidae. pp 1553-1554. *In*, Yang, X. K. (Editor). Insects of the Three Gorge Reservoir area of Yangtze River. Chongqing Publishing House. Chongqing, China. 1847 pp. (In Mandarin)
- Yang, J. K. and D. Yang. 1994. New species of the genus *Platycephala* (Diptera: Chloropidae) from China. Entomotaxonomia 16(2):153-155.